

CLAIMS

1. A guidewire for introduction into a body via a hollow needle, comprising:

5 a proximal end having a stiffness greater than 10 N; and
a distal end having a stiffness less than 3 N,
the stiffness being defined as the force required to produce an angular lateral displacement of 30 degrees when applied at a distance of 10 mm along the respective length of guidewire..

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2. The guidewire of claim 1 further including an intermediate portion having a stiffness lying between the stiffness of the proximal end and the distal end.

15 3. The guidewire of claim 1 in which the distal end comprises a coil having a central core.

4. The guidewire of claim 2 in which the distal end and the intermediate portion comprise a coil having a central core, the core having a first diameter
20 in the intermediate portion greater than a second diameter in the distal portion.

5. The guidewire of claim 4 in which the central core has a tapering diameter in the intermediate portion towards the distal end.

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6. The guidewire of claim 1 in which the distal end extends over a length of between 10 and 15 cm.

30 7. The guidewire of claim 6 in which the distal end extends over a length of $12.5 \text{ cm} \pm 1 \text{ cm}$.

8. The guidewire of claim 2 in which the distal end extends over a length of between 2 and 8 cm, and in which the intermediate portion extends over a length of between 2 and 8 cm.

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9. The guidewire of claim 8 in which the distal end extends over a length of at least 2 cm and in which the intermediate portion extends over a length of $4\text{ cm} \pm 1\text{ cm}$.

10 10. The guidewire of any one of claims 1 to 9 in which the proximal end comprises a hollow tube containing a wire core.

11. A guidewire for introduction into a body via a hollow needle, comprising:

15 a proximal end having a first stiffness;
a distal end having a second stiffness less than said first stiffness; and
an intermediate portion having a stiffness lying between the first and second stiffness values.

20 12. The guidewire of claim 11 in which the distal end comprises a coil having a central core.

13. The guidewire of claim 12 in which the distal end and the intermediate portion comprise a coil having a central core, the core having a first diameter in the intermediate portion greater than a second diameter in the distal portion.

25 14. The guidewire of claim 13 in which the central core has a tapering diameter in the intermediate portion towards the distal end.

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15. The guidewire of claim 11 in which the distal end extends over a length of between 10 and 15 cm.

16. The guidewire of claim 15 in which the distal end extends over a
5 length of $12.5\text{ cm} \pm 1\text{ cm}$.

17. The guidewire of claim 11 in which the distal end extends over a length of between 2 and 8 cm, and in which the intermediate portion extends over a length of between 2 and 8 cm.

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18. The guidewire of claim 7 in which the distal end extends over a length of at least 2 cm and in which the intermediate portion extends over a length of $4\text{ cm} \pm 1\text{ cm}$.

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19. The guidewire of any one of claims 11 to 18 in which the proximal end comprises a hollow tube containing a wire core.

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20. The guidewire of any preceding claim in which the proximal end has a stiffness adapted to facilitate the guiding of a substantially rigid catheter sheath of diameter in the range 5 to 7 mm into the bladder via the supra-pubic region of the human body.

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21. The guidewire of any preceding claim forming part of a kit comprising: a hollow needle having an inside diameter adapted for receiving the guidewire; and a catheter sheath having an internal diameter adapted to receive the guidewire and to penetrate the supra-pubic region of the human body using the proximal portion of the guidewire as a guide, the catheter sheath having a peelable outer skin.

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22. A bladder drainage kit comprising:

a guidewire having an outside diameter less than 2 mm and having a proximal end having a first stiffness and a distal end having a second stiffness, the second stiffness being less than the first stiffness;

5 a peelable catheter sheath adapted to receive the guidewire and to penetrate the supra-pubic region of the human body using the proximal portion of the guidewire as a guide, the catheter sheath having an inside diameter at its distal end approximately equal to the outside diameter of the guidewire, and an inside diameter at its proximal end of at least 4 mm for receiving a flexible drainage catheter.

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23. The kit of claim 22 in which the peelable catheter sheath further includes an inner sheath for stiffening the peelable catheter sheath during insertion into the body, the inner sheath being withdrawable from the proximal end of the peelable catheter sheath.

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24. The kit of claim 22 or claim 23 in which the guidewire has a diameter at its distal end in the range 750 to 1000 microns.

25. A method for introducing a catheter into the bladder of the human
20 body in the supra-pubic region comprising the steps of:

introducing a needle into the bladder via the supra-pubic region, the needle having an outside diameter less than 2 mm;

inserting a guidewire having an outside diameter less than 2 mm into the bladder through an internal bore of the needle;

25 withdrawing the needle over the guidewire;

introducing a peelable catheter sheath into the bladder over the guidewire, the catheter sheath having a distal end of outside diameter less than approximately 2 mm and a proximal end having an outside diameter of at least 4 mm;

30 withdrawing the guidewire through the catheter sheath;

inserting a flexible catheter into the bladder through the catheter sheath; and

peeling away the catheter sheath from the flexible catheter leaving the flexible catheter in situ.

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26. Apparatus substantially as described herein and with reference to the accompanying drawings.